

Attorney's Docket No. TET-1689 (98118)

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Grabowsky et al.

Serial No: 09/128,158

Group No.: 3681

Filed: July 30, 1998

Examiner Gibson

For: AIRCRAFT, FLIGHT DATA ACQUISITION AND TRANSMISSION SYSTEM

Pittsburgh, Pennsylvania 15222-2312
December 30, 1999

Assistant Commissioner for Patents
Washington, D.C. 20231

AMENDMENT TRANSMITTAL

1. Transmitted herewith is an amendment for this application.

STATUS

2. Applicant is

a small entity. A verified statement:

- ☐ is attached.
was already filed.

- ☒ other than a small entity.

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CERTIFICATE OF MAILING/TRANSMISSION (37 CFR 1.8a)

I hereby certify that this correspondence is, on the date shown below, being:

MAILING

☐ deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.

FACSIMILE

☐ transmitted by facsimile to the Patent and Trademark Office.

Signature

(type or print name of person certifying)

(Amendment Transmittal [9-19]-page 1 of 4)



EXTENSION OF TERM

NOTE: "Extension of Time in Patent Cases (Supplement Amendments) - If a timely and complete response has been filed after a Non-Final Office Action, an extension of time is not required to permit filing and/or entry of an additional amendment after expiration of the shortened statutory period.

If a timely response has been filed after a Final Office Action, an extension of time is required to permit filing and/or entry of a Notice of Appeal or filing and/or entry of an additional amendment after expiration of the shortened statutory period unless the timely-filed response placed the application in condition for allowance. Of course, if a Notice of Appeal has been filed within the shortened statutory period, the period has ceased to run." Notice of December 10, 1985 (1061 O.G. 34-35).

NOTE: See 37 CFR 1.645 for extensions of time in interference proceedings, and 37 CFR 1.550(c) for extensions of time in reexamination proceedings.

3. The proceedings herein are for a patent application and the provisions of 37 CFR 1.136 apply.

(complete (a) or (b), as applicable)

(a) Applicant petitions for an extension of time under 38 CFR 1.136 (fees: 37 CFR 1.17(a)-(d) for the total number of months checked below:

Extension (months)	Fee for other than small entity	Fee for small entity
<input type="checkbox"/> one month	\$ 110.00	\$ 55.00
<input type="checkbox"/> two months	\$ 400.00	\$200.00
three months	\$ 950.00	\$475.00
<input type="checkbox"/> four months	\$1,510.00	\$755.00
	Fee \$	

If an additional extension of time is required, please consider this a petition therefor.

(check and complete the next item, if applicable)

☐ An extension for _____ months has already been secured and the fee paid therefor of \$ _____ is deducted from the total fee due for the total months of extension now requested.

Extension fee due with this request \$

OR

(b) ☒ Applicant believes that no extension of term is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition for extension of time.

(Amendment Transmittal [8-19]-page 2 of 4

FEE FOR CLAIMS

4. The fee for claims (37 CFR 1.16(b)-(d)) has been calculated as shown below:

(Col. 1)		(Col. 2)		(Col. 3)	SMALL ENTITY			OTHER THAN A SMALL ENTITY	
CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NO PREVIOUSLY PAID FOR		PRESENT EXTRA	RATE	ADDIT. FEE	OR	RATE	ADDIT. FEE
TOTAL	33*	MINUS	33**	10	x11=	\$0		x18=	\$0
INDEP.	9*	MINUS	7**	2	x41=	\$0		x78=	156
<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEP. CLAIM					+125=	\$		+250=	\$
					TOTAL ADDIT. FEE	\$0	OR	TOTAL ADDIT. FEE	\$156

- If the entry in Col. 1 is less than entry in Col. 2, write "J" in Col. 3.
 - If the "Highest No. Previously Paid for" IN THIS SPACE is less than 20, enter "20."
 - If the "Highest No. Previously Paid for" IN THIS SPACE is less than 3, enter "3."
- The "Highest No. Previously Paid for" (Total or Indep.) is the highest number found in the appropriate box in Col. 1 of a prior amendment or the number of claims originally filed.

WARNING "After final rejection or action (§ 1.113) amendments may be made cancelling claims or complying with any requirement of form which has been made." 37 CFR § 1.116(a) (emphasis added).

Complete (c) or (d), as applicable)

(c) ☐ No additional fee for claims is required.**OR**(d) ☒ Total additional fee for claims required \$ 156.00**FEE PAYMENT**5. ☒ Attached is a check in the sum of \$ 156.00☐ Charge Account No. _____ the sum of \$ _____

A duplicate of this transmittal is attached.

(Amendment Transmittal [8-19]-page 3 of 4)

FEE DEFICIENCY

NOTE: If there is a fee deficiency and there is no authorization to charge an account, additional fees are necessary to cover the additional time consumed in making up the original deficiency. If the maximum, six-month period has expired before the deficiency is noted and corrected, the application is held abandoned. In those instances where authorization to charge is included, processing delays are encountered in returning the papers to the PTO Finance Branch in order to apply these charges prior to action on the cases. Authorization to charge the deposit account for any fee deficiency should be checked. See the Notice of April 7, 1986, (1065 O.G. 31-33).

6. ☒ If any additional extension and/or fee is required, charge Account No.

7. 11-1110

AND/OR

☒ If any additional fee for claims is required, charge Account No.

11-1110


SIGNATURE OF ATTORNEY

Reg. No.: 42,747

Tel. No.: (412) 355-6342

Mark G. Knedelsen
(type or print name of attorney)

Kirkpatrick & Lockhart LLP
535 Smithfield Street
Pittsburgh, PA 15222

(Amendment Transmittal [9-19]-page 4 of 4

01-03 - 00

GP 3661



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney's Docket No. 98118

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Grabowsky et al.

Serial No. 09/126,156

Group No.: 3661

Filed: July 30, 1998

Examiner: Gibson

For: AIRCRAFT FLIGHT DATA ACQUISITION AND TRANSMISSION SYSTEM

Commissioner of Patents and Trademarks

Washington, D.C. 20231

EXPRESS MAIL CERTIFICATE

"Express Mail" label number EG831844233US

Date of Deposit: December 30, 1999

I hereby certify that the following attached paper or fee

RESPONSE TO OFFICE ACTION
LETTER TO DRAFTSPERSON
CHECK FOR EXTRA CLAIMS (made payable to PTO)

is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to the Commissioner of Patents and Trademarks, Washington, D.C. 20231.

Terri J. Watson

(Typed or printed name of person mailing paper or fee)

Terri J. Watson

(Signature of person mailing paper or fee)

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PATENT
TET-1689

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:
Grabowsky et al.

Group Art Unit 3661

Examiner Gibson, E.

Serial No. 09/126,156

Filed: July 30, 1998



AIRCRAFT FLIGHT DATA
ACQUISITION AND
TRANSMISSION SYSTEM

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RESPONSE TO OFFICE ACTION

Pittsburgh, Pennsylvania 15222

December 30, 1999

Assistant Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

In response to the Office Action mailed October 1, 1999, please amend the above-identified application as follows:

In the Specification

Please amend the Specification as follows:

ENC 2/00
Page 9, line 9, delete "16" and insert --45-- therefor.

In the Drawings

Please amend Figure 8 as indicated in the enclosed substitute Figure 8.

PI-465622.03

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01/05/2000 510046 00000024 09126156 156.00 DP
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In the Claims

Please cancel claims 25 and 29.

Please amend the claims as follows:



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8. (Amended) A data system for an aircraft, comprising:
a digital flight data acquisition unit in communication with at least one sensor;
a processor in communication with said digital flight data acquisition unit;
a serial card in communication with said processor; and
a plurality of cell channels in communication with said serial card, said cell channels for
transmitting data via a cellular infrastructure after the aircraft has landed.

12 16. (Amended) The system of claim 15 wherein said means for [sending]
transmitting data includes a processor.

26. (Amended) The method of claim [25] ²⁶ ~~24~~ wherein starting a primary data thread
includes:

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initiating a PPP connection;
initiating a transfer session;
starting at least one secondary data thread;
determining if data remains in the primary data thread;
sending said data when data remains in the primary data thread;
determining if data threads are active when no data remains in the primary data thread;

repeating, when said threads are active, the step of determining if data remains in the

Q3 primary data thread;

ending said session when no threads are active;

closing said PPP connection; and

exiting starting a primary data thread.

30. (Amended) The method of claim [29] ²⁹ wherein initializing a session includes:

allocating buffer space;

sending an initiation session acknowledgment; and

returning to receiving a message.

Q4 31. (Amended) The method of claim [29] ²⁹ wherein processing said message when said message is a data message includes:

copying said message to a buffer;

sending a data message acknowledgment; and

returning to receiving a message.

32. (Amended) The method of claim [29] ²⁹ wherein processing said message when said message is not an end session includes:

computing a checksum;

determining if said checksum is valid;

saving a buffer to a temporary file;

a4

decrypting said temporary file;
uncompressing said temporary file;
sending an end session acknowledgment; and
returning to receiving a message.

Please add the following new claims: 7

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34. A computer-implemented method of transmitting aircraft flight data from an aircraft, comprising:

receiving flight data from a digital flight data acquisition unit;
processing said flight data to prepare said data for transmission; and
transmitting said processed data via a cellular infrastructure after the aircraft has landed,

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wherein processing said flight data includes:

receiving a weight-on-wheels signal;
initiating a data transfer;
compressing said flight data;
encrypting said compressed data;
creating a packet queue;
starting a primary data thread;
waiting a predetermined period of time;
determining if any threads are active;
repeating, when threads are active, the steps of waiting a predetermined period of time and determining if any threads are active; and

exiting processing said flight data when no threads are active.

29. A computer-implemented method of transmitting aircraft flight data from an aircraft, comprising:

receiving flight data from a digital flight data acquisition unit;

processing said flight data to prepare said data for transmission; and

transmitting said processed data via a cellular infrastructure after the aircraft has landed;

and

receiving said transmitted data at a flight operations center, wherein receiving said

transmitted data includes:

creating a socket;

receiving a message;

determining if said message is an initialization message;

initiating a session when said message is an initialization message;

determining if said message is a data message when said message is not an

initialization message;

processing said message when said message is a data message;

determining if said message is an end session when said message is not a data

message;

processing said message when said message is an end session; and

repeating, when said message is not an end session message, the step of receiving

a message --

REMARKS

Specification

Applicants have herein amended the specification at page 9, line 9, to correct an informality as requested by the Examiner.

Drawings

The Examiner objected to Figure 8 as having an incorrect label. Applicants have amended Figure 8 as indicated in the enclosed substitute Figure 8, wherein the changes are shown in red ink. In particular, Applicants have amended Figure 8 to identify the illustrated method with reference numeral "136". Applicants are also herewith submitting a clean copy of substitute Figure 8. Applicants hereby request permission to enter substitute Figure 8.

Applicants are also submitting a separate Letter to Draftsperson requesting permission to enter the substitute drawing in accordance with Section 608.02(r) of the Manual of Patent Examining Procedure (MPEP). A copy of such letter is attached for the Examiner's convenience.

Section 112 Rejections

The Examiner rejected claims 8-13 and 16 under 35 U.S.C. § 112, ¶ 2, as being indefinite for failing to point out and particularly claim the subject matter regarded as the invention. In particular, the Office Action stated that the term "said digital flight data acquisition unit" in claims 8 and 13, and the term "said means for sending data" in claim 16 lack antecedent bases. Applicants have amended claim 8 to provide an antecedent basis for the term "said digital flight data acquisition unit". Applicants have amended claim 16 to recite "said means for transmitting

data", for which there is an antecedent basis in claim 15, from which claim 16 depends.

Applicants submit that claims 8-13 and 16, as amended, satisfy 35 U.S.C. § 112, ¶ 2.

Prior Art Rejections

The Examiner rejected claims 1, 4, 7-8, 10, 12, 14-20, and 33 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent 5,550,738 to Bailey et al. Claims 2-3 and 21-22 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Bailey in view of U.S. Patent 5,793,813 to Cleave. Claims 5-6, 9, 11, and 13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Bailey. Claim 23 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Bailey in view of U.S. Patent 5,124,915 to Krenzel. Claim 24 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Bailey in view of U.S. Patent 4,939,652 to Steiner and in further view of Krenzel. Claim 33 was also rejected under 35 U.S.C. § 103(a) as being obvious over Bailey. Applicants respectfully traverse the rejections as follows.

Independent claims 1, 8, 14, 15, 18, 19, and 33 were rejected as being anticipated by Bailey. Applicants submit, however, that Bailey does not teach every aspect of the claimed invention. See MPEP § 2131 (stating that a claim is anticipated under 35 U.S.C. § 102 only if each and every element set forth in the claim is found, either expressly or impliedly described, in a single prior art reference). In particular, with respect to claim 1, Applicants submit that Bailey fails to disclose, among other elements, a data acquisition unit or a communications unit located in an aircraft. Further, Applicants submit that Bailey fails to disclose, among other elements, a cellular infrastructure in communication with the communications unit after the aircraft has landed, as claimed in claim 1.

To the contrary, Bailey discloses a vehicle recording system for recording the land distance traveled by an automobile or truck. The system includes a magnetic sensor mounted on the vehicle adjacent to a vehicle component whose speed of rotation is proportional to vehicle speed, such as a drive shaft or an axle of an automobile. *See* Bailey et al., col. 3, lines 43-50. A pair of magnets are attached to the shaft or axle so that they align with the sensor as the shaft or axle is rotated. *See* Bailey et al., col. 3, lines 52-58. Accordingly, Applicants submit that because Bailey is merely directed to a system for recording the land distance traveled by the vehicle, it is not suitable for an aircraft. Further, inasmuch as the system of Bailey is for land purposes, Applicants submit that it fails to disclose a cellular infrastructure in communication with the system after the vehicle has landed. Therefore, Applicants submit that claim 1 is not anticipated by Bailey.

Similarly, with respect to claims 8 and 14, Applicants submit that Bailey fails to disclose a data system for an aircraft including, among other elements, a digital flight data acquisition unit and a plurality of cell channels for transmitting data via a cellular infrastructure after the aircraft has landed. Also, with respect to claim 15, Applicants submit that Bailey fails to disclose, among other elements, a data acquisition unit located in an aircraft and a means for transmitting data from the data acquisition unit via a cellular infrastructure after the aircraft has landed. Additionally, with respect to claims 18 and 19, Applicants submit that Bailey fails to disclose a method of transmitting aircraft flight data from an aircraft including, among other steps, receiving flight data from a data acquisition unit located in an aircraft and transmitting the flight data via a cellular communications infrastructure after the aircraft has landed.

In addition, with respect to claim 33, Applicants submit that Bailey fails to teach or suggest a computer readable medium which when executed by a processor cause the processor

to, among other things, receive flight data from a digital flight data acquisition unit in an aircraft and transmit processed data via a cellular infrastructure when the aircraft has landed.

Further, Applicants submit that independent claims 1, 8, 14, 15, 18, 19, and 33 are not obvious in view of Bailey. Bailey discloses a system for recording the land distance traveled by a vehicle. In contrast, the present invention is directed to solving a long felt need in the avionics industry, and discloses the acquisition and transmission of aircraft flight data. Thus, Applicants submit that a person of ordinary skill in the art would not be motivated to modify the system of Bailey to realize the present invention.

Because claims 1, 8, 14, 15, 18, 19, and 33 are novel and nonobvious in view of the cited reference as discussed hereinbefore, Applicants submit that claims 2-7, 9-13, 16, 17 and 20-24, which depend therefrom, are also in condition for allowance. See MPEP § 2143.03 (stating that if an independent claim is nonobvious, a claim depending therefrom is nonobvious).

Objected-to Claims

The Examiner objected to claims 25-32 as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 25 has been canceled and rewritten as independent claim 34 to include the limitations of its base claim (claim 19). Claim 29 has been canceled and rewritten as independent claim 35 to include the limitations of its base claim (claim 19) and intervening claim 20. Therefore, Applicants submit that claims 34 and 35 are in condition for allowance.

Claim 26 has been amended to depend directly from claim 34. Applicants submit that claim 34 is in condition for allowance and, therefore, claims 26-28, which depend directly or indirectly from claim 34, are also in condition for allowance.

Claims 30-32 have been amended to depend directly from claim 35. Applicants submit that claim 35 is in condition for allowance and, therefore, claims 30-32, which depend directly from claim 35, are also in condition for allowance.

Amendments

Support for the amendments made herein may be found throughout the specification and claims as filed. Applicants submit that no new matter has been added.

A

CONCLUSION

Applicants respectfully request a Notice of Allowance for the pending claims in this application. If the Examiner is of the opinion that the instant application is in condition for disposition other than allowance, the Examiner is respectfully requested to contact Applicants' attorney at the telephone number listed below in order that the Examiner's concerns may be expeditiously addressed.

Respectfully submitted,


Mark G. Kneideisen
Reg. No. 42,747

KIRKPATRICK & LOCKHART, LLP
Henry W. Oliver Building
535 Smithfield Street
Pittsburgh, Pennsylvania 15222

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Fax (412) 355-6501

PATENT
TET-1689

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:
Grabowsky et al.

Group Art Unit 3661

Examiner Gibson, E.

Serial No. 09/126,156

Filed: July 30, 1998



AIRCRAFT FLIGHT DATA
ACQUISITION AND
TRANSMISSION SYSTEM

*g/He to
Drafts
1/7/00
H/mer*

LETTER TO DRAFTSPERSON

Pittsburgh, Pennsylvania 15222

December 30, 1999

Assistant Commissioner for Patents
Washington, D.C. 20231

Attn: Drawing Review Board

Dear Sir:

Responsive to the objection to the drawings as stated in the Office Action mailed October 1, 1999 issued in connection with the above-identified application, Applicants respectfully request permission to replace Figure 8 with the enclosed substitute Figure 8, wherein the change is shown in red ink. In particular, Applicants have amended Figure 8 to identify the illustrated method with the reference numeral "136". Applicants are also submitting herewith a clean copy of substitute Figure 8. Applicants submit that substitute Fig. 8 does not introduce new matter, and that the substitute figure is consistent with the teachings of the present invention.

PI-466107.01

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*for
4/1/00
revise*

Approval to make the above-mentioned amendment is respectfully solicited.



Respectfully submitted,

Mark G. Knedeisen

Mark G. Knedeisen
Reg. No. 42,747

KIRKPATRICK & LOCKHART, LLP
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Pittsburgh, Pennsylvania 15222

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136
~~137~~

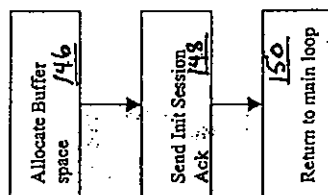
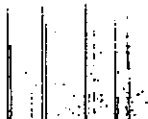


FIG. 8

136

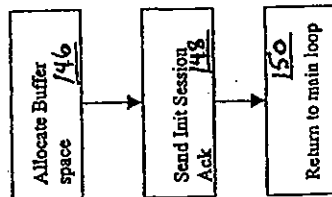


FIG. 8



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
 Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/126,156	07/30/98	GRABOWSKY	J TET-1689
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EXAMINER

PM82/0209

ROBERT J PUGH
 ALLEGHENY TELEDYNE INCORPORATED
 1000 SIX PPG PLACE
 PITTSBURGH PA 15222

GIBSON, E	
ART UNIT	PAPER NUMBER

3661

DATE MAILED:

02/09/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No.		Applicant(s)	
	09/128,158		GRABOWSKY ET AL.	
	Examiner		Art Unit	
	Eric M Gibson		3881	

- The MAILING DATE of this communication appears on the cover sheet with the correspondence address -

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

1) ☒ Responsive to communication(s) filed on 30 December 1999.

2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-24, 26-28 and 30-35 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☒ Claim(s) 26-28, 30-32, 34 and 35 is/are allowed.

6) ☒ Claim(s) 1-24 and 33 is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11) ☒ The proposed drawing correction filed on 30 December 1999 is: a) ☒ approved b) ☐ disapproved.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) ☐ All b) ☐ Some * c) ☐ None of the CERTIFIED copies of the priority documents have been:

1. ☐ received.

2. ☐ received in Application No. (Series Code / Serial Number) _____.

3. ☐ received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

Attachment(s)

14) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	17) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____
15) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-348)	18) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
16) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>1</u> .	19) <input type="checkbox"/> Other: _____

U.S. Patent and Trademark Office
PTO-326 (Rev. 3-98)

Office Action Summary

Part of Paper No. 7

Application/Control Number: 09/126,156

Page 2

Art Unit: 3661

DETAILED ACTION

Information Disclosure Statement

The references listed on the Information Disclosure Statement filed on 11/12/1999 (paper # 4) have previously been cited in the first office action (paper #3), with copies provided. Therefore, they have already been considered and are crossed off on paper # 4.

Drawings

The proposed drawing correction and/or the proposed substitute sheets of drawings, filed on 12/30/1999 have been approved.

Since allowable subject matter has been indicated, applicant is encouraged to submit formal drawings in response to this Office Action. The early submission of formal drawings will permit the Office to review the drawings for acceptability and to resolve any informalities remaining therein before the application is passed to issue. This will avoid possible delays in the issue process.

Applicant is reminded of the objections to the drawings made by the draftperson (PTO-948), attached to paper # 3.

Specification

The amendment to the specification was not entered because the change was directed to page 9, line 9, instead of line 7. Therefore, the examiner has changed reference number "16", on page 9, line 7, to '45'.

Application/Control Number: 09/126,156

Page 3

Art Unit: 3661

Claim Rejections - 35 USC § 112

The rejections of claims 8-13, and 16 have been withdrawn as corrected by amendment.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 4, 7, and 15-17 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Bailey et al. (5,550,738).

As per claims 1 and 4, wherein the data transmission system comprises a communications unit, a cellular infrastructure in communication with the communications unit after the aircraft has landed, and a data reception unit in communication with the cellular infrastructure, is anticipated by Bailey. Bailey is directed to a vehicle, an aircraft is considered to be a vehicle. Bailey discloses a data acquisition unit (vehicle data unit 16), comprised of a communications unit located on the vehicle (cellular modem 43), the communication unit is in communication with a cellular infrastructure (col. 2., lines 35-36). Communication occurring after the aircraft has landed therefore takes place on the ground as opposed to the air. The data transmission occurring after the aircraft has landed is in no way different from data transmission occurring in any other land vehicle. An airplane is a land vehicle, travelling

Application/Control Number: 09/126,156

Page 4

Art Unit: 3661

via wheels, once it is on the ground. In Bailey, the communication is occurring on the ground. Furthermore, Bailey discloses a data reception unit (data reporting system 12) in communication with the cellular infrastructure.

As per claim 7, wherein the system of claim 1 further includes a router, processor in communication with the router, and a storage unit connected to the processor, in the data reception unit, Bailey discloses these limitations in data reporting system 12. In column 5, lines 26-40, Bailey discloses a data reception unit including a router (45), a processor (microprocessor 72), and a storage unit (disk drive 74).

As per claim 15, the previous rejections establish that Bailey discloses means for transmitting data via a cellular infrastructure and means for receiving data from the cellular infrastructure. As stated previously, Bailey is directed to a vehicle, an aircraft is considered to be a vehicle and communication occurring after the aircraft has landed therefore takes place on the ground as opposed to the air. In Bailey, the communication is occurring on the ground.

As per claims 16 and 17, wherein the transmitting and receiving units contain processors, refer to the above explanations regarding claim 7, which establishes that Bailey discloses processors.

MPEP §2131.05 states that "arguments that the alleged anticipatory prior art is 'nonanalogous art' or 'teaches away from the invention' or is not recognized as solving the problem solved by the claimed invention, [are] not 'germane' to a rejection under

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section 102." *Twin Disc, Inc. v. United States*, 231 USPQ 417, 424 (Cl. Ct. 1986)(quoting *In re Self*, 671 F.2d 1344, 213 USPQ 1, 7 (CCPA 1982)).

This applies where the applicant argues that the anticipatory prior art is for a land vehicle and the invention is for an aircraft. When the aircraft is on the ground, it is a land vehicle and data transmitted therefrom is treated no differently than data from any other land vehicle.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8, 10, 12, 14, 18, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bailey et al. in view of Farmakis et al. (US 5,714,948).

Claims 8, 12, and 14 include a data system for an aircraft comprising a digital flight data acquisition unit in communication with at least one sensor. Bailey discloses a data acquisition unit (microprocessor-based vehicle data unit 16) in communication with at least one sensor (26) in figure 2. As stated previously, Bailey is directed to a vehicle, an aircraft is considered to be a vehicle. In column 5, lines 35-37, Bailey discloses a serial interface (84) in communication with the processor of the data acquisition unit.

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Furthermore, Bailey discloses a plurality of cell channels in communication with the serial interface in column 4, lines 17-20. As stated previously, communication occurring after the aircraft has landed therefore takes place on the ground as opposed to the air. In Bailey, the communication is occurring on the ground. Furthermore, the claims are specifically directed to flight data and flight data acquisition units with regard to what type of data is being transmitted. However, the transmission of flight data is no different than transmission of data for any other vehicle in that data relating to the vehicle is being transmitted. The transmission of the data is in no way effected by what type of data it is. If the vehicle were a train the data would be train data, if the vehicle were an automobile the data would be automobile data, and here the vehicle is an aircraft and the data is correspondingly aircraft data. No special steps are implemented because the data comes from an aircraft as opposed to any other vehicle. Farmakis teaches that aircraft data from an aircraft on the ground (col. 16, lines 45-55) is transmitted to an ATC facility and that the systems used to communicate with the aircraft on the ground can be used in vehicles such as ships, automobiles, railroads, submarines, etc. (col. 22, line 63 – col. 23, line 2). It would have been obvious to one of ordinary skill in the art, at the time of invention, to use the system and method of Bailey to specifically transmit flight data related to an aircraft, as exemplified by Farmakis.

As per claim 10, wherein the processor is a personal computer, see Bailey column 5, line 27.

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As per claim 19, the invention has been previously disclosed by Bailey in the above rejections, with the exception of the step of processing the data to prepare for transmission. In column 4, lines 17-19, Bailey discloses breaking the data into individual, self-contained packets. This is considered to be processing the data in preparation for transmission. Furthermore, Farmakis teaches transmitting coded signals or data to an ATC facility, including a header segment and an information segment (col. 17, lines 1-10). This is also considered to be processing of data. It would have been obvious to one of ordinary skill in the art, at the time of the invention, to include processing the data in the invention, as taught by Bailey and further exemplified by Farmakis.

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Bailey and Farmakis in further view of Levine (US 5,890,079). Bailey and Farmakis disclose the invention as explained in the previous rejections. The combination does not teach receiving the data at a flight operations center. Levine teaches transmission of aircraft flight data to a central ground based processing station. As seen in Figure 4 of Levine, the central ground based processing station includes air traffic control and the aircraft manufacturer facility, any and all of which can be considered a flight operations center. It would have been obvious to one of ordinary skill in the art, at the time of invention, to send the vehicle data to a flight operations center, in order to allow the information to be stored remotely and analyzed by skilled personnel, as explained in Levine (column 4, lines 17-28).

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Claims 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Bailey, Farmakis, and Levine as applied to claim 20 above, and further in view of Cleave (US 5,793,813). The combination discloses the invention as explained in the previous rejections of claim 20. The combination does not teach using the Internet or public switched telephone network (PSTN) to receive the data from the cellular infrastructure at the data reception unit. Cleave teaches in column 4, lines 44-47, the use of the Internet or PSTN coupled to the gateway to receive the information at the data reception unit in a data communications system. It would have been obvious to one of ordinary skill in the art, at the time of the invention, to provide the invention taught by the combination of Bailey and Levine with a connection to the Internet or PSTN in order to receive the data from the cellular infrastructure.

Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bailey in view of Cleave. Bailey et al. discloses the invention as explained in the previous rejections of claim 1. Bailey does not teach using the Internet or public switched telephone network (PSTN) to receive the data from the cellular infrastructure at the data reception unit. Cleave teaches in column 4, lines 44-47, the use of the Internet or PSTN coupled to the gateway to receive the information at the data reception unit in a data communications system. It would have been obvious to one of ordinary skill in the art, at the time of the invention, to provide the invention of Bailey et al. with a connection to the Internet or PSTN in order to receive the data from the cellular infrastructure.

Claims 5- 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bailey in view of Averbuch et al. (US 5,901,142). Bailey discloses the invention as

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explained in the previous rejections. Bailey does not teach a cellular infrastructure with an antenna, transceiver subsystem, and controller. Averbuch teaches a cellular infrastructure including an antenna, transceiver subsystem, and controller (figure 1). It is well known in the art that in order for a cellular communications system to operate it must contain these items. It would have been obvious to one of ordinary skill in the art, at the time of invention, to include in the invention of Bailey the components of a cellular system that are well known in the art, as shown by Averbuch, in order for it to function properly.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Bailey and Farnakis as applied to claim 8 above, and further in view of Averbuch. The combination discloses the invention as explained in the previous rejections. The combination does not teach a cellular infrastructure with an antenna, transceiver subsystem, and controller. Averbuch teaches a cellular infrastructure including an antenna, transceiver subsystem, and controller (figure 1). It is well known in the art that in order for a cellular communications system to operate it must contain these items. It would have been obvious to one of ordinary skill in the art, at the time of invention, to include in the invention the components of a cellular system that are well known in the art, as shown by Averbuch, in order for it to function properly.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Bailey and Farnakis as applied to claim 8 above, and in further view of Harper, Jr. et al. (US 5,519,663). The combination discloses the invention as explained

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in the previous rejections. The combination does not teach that the processor may be an application specific integrated circuit (ASIC). It is well known in the art to use an ASIC for specific applications. Harper, Jr. demonstrates that using an ASIC is equivalent to using a microprocessor in column 5, lines 64-67. It would have been obvious to one of ordinary skill in the art, at the time of invention, to include in the invention the features of a processor that are well known in the art in order to allow better operation, as exemplified by Harper, Jr.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Bailey and Farnakis as applied to claim 8 above, and in further view of Steiner (4,939,652). The combination discloses the invention as explained in the previous rejections. The combination does not teach that the processor has an I/O interface. It is well known in the art to use an I/O interface connected to a processor to allow for the exchange of data with the processor. Steiner shows this in column 6. It would have been obvious to one of ordinary skill in the art, at the time of invention, to include in the invention the features of a processor that are well known in the art in order to allow better operation, as exemplified by Steiner.

Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Bailey and Farnakis as applied to claim 19 above, and in further view of Krenzel (US 5,124,915). The combination teaches the use of a cellular digital packet data network in the invention as previously explained. The combination does not teach the use of compression or encryption in the data network. Krenzel teaches compression/uncompression of data in column 3, lines 30-41, for the use in a data communication system. It would have been obvious to one of ordinary skill in the art, at the time of the invention, to include in the invention the data

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compression/uncompression as taught by Krenzel in order to reduce the file size of the data needed to be transmitted, increasing the speed of transmission. Encryption, and subsequent decryption at the receiving end, is well known in the art to provide additional security for the transmission of data via a wireless system. It would have been obvious to one of ordinary skill in the art, at the time of the invention, to include data encryption and decryption in the invention in order to provide additional security over a wireless system.

Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Bailey, Farmakis, and Krenzel as applied to claim 23 above, and in further view of Steiner. The combination teaches the invention as explained in the previous claims including the use of disk drives for data storage. The combination with Krenzel teaches the invention as explained in the rejection of claim 23. The combination does not teach acknowledging receipt of data. Steiner teaches the acknowledgment of receipt of data in column 9, lines 16-17, in a data packet communication system. It would have been obvious to one of ordinary skill in the art, at the time of invention, to include in the combination the data acknowledgment receipt of Steiner in order to ensure proper delivery of data through the system.

Claim 33 is rejected under 35 U.S.C. 103(a) as obvious over Bailey in view of Winslow (US 5,852,825). Bailey does not teach writing a computer program to a suitable medium to implement the steps of data exchange when the program is executed by the processor. The writing of programs stored on computer readable media to implement specific functions is well known in the art. Several programs exist that are well known in the art of data transmission, refer to Winslow, column 4, lines 20-29 for examples of data transmitting programs that are well known in the art. Therefore,

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it would have been obvious to one of ordinary skill in the art, at the time of invention, to write a program capable of implementing the recited steps as already present in Bailey, as it is well known to write computer programs to implement specific applications, as exemplified by Winslow.

Allowable Subject Matter

Claims 26-28, 30-32 and 34-35 are allowed.

Response to Arguments

Applicant's arguments filed 12/30/1999 have been fully considered but they are not persuasive.

Bailey is relied upon to disclose a system and method for transmitting vehicle data via a cellular infrastructure. Since once an aircraft had landed it becomes a land vehicle, there is no difference in transmitting data from an aircraft as opposed to transmitting data from any other land vehicle.

Furthermore, the claims are specifically directed to flight data and flight data acquisition units with regard to what type of data is being transmitted. However, the transmission of flight data is no different than transmission of data for any other vehicle in that data relating to the vehicle is being transmitted. The transmission of the data is in no way effected by what type of data it is. If the vehicle were a train the data would be train data, if the vehicle were an automobile the data would be automobile data, and

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here the vehicle is an aircraft and the data is correspondingly aircraft data. No special steps are implemented because the data comes from an aircraft as opposed to any other vehicle.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric M Gibson whose telephone number is (703) 306-4545. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Cuchlinski can be reached on (703) 308-3873. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7687 for regular communications and (703) 305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

emg
February 2, 2000


MICHAEL J. ZANELLI
PRIMARY EXAMINER

Notice of References Cited				Application/Control No.		Applicant(s)/Patent Under Reexamination			
				09/128,168		GRABOWSKY ET AL.			
				Examiner		Art Unit			
				Eric M Gibson		3881			
						Page 1 of 1			
U.S. PATENT DOCUMENTS									
*		DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	DOCUMENT SOURCE **		
							APS	OTHER	
<input type="checkbox"/>	A	5,519,683	May. 1996	Harper, Jr. et al.	385	229	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	B	5,714,948	Feb. 1998	Farmakis et al.	340	981	<input type="checkbox"/>	<input type="checkbox"/>	
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NON-PATENT DOCUMENTS									
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<input type="checkbox"/>	W							<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	X							<input type="checkbox"/>	<input type="checkbox"/>

*A copy of this reference is not being furnished with this Office action. (See Manual of Patent Examining Procedure, Section 707.05(a).)
 **APS encompasses any electronic search i.e. text, image, and Commercial Databases.

U.S. Patent and Trademark Office
 PTO-892 (Rev. 03-98)

Notice of References Cited

Part of Paper No. **7**

JUL 6 2000 12:01PM

A T I LAW DEPARTMENT PGH

NO. 9177 P. 1



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Specialty Materials That Make Our World

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PHONE (412) 394-2800

Confidential Information

3661

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TO > Examiner Gibson
LOCATION > Patent & Trademark Office
FAX # > 703-308-8623

FROM > Robert J. Pugh
FAX # > 412-394-3010
VOICE # > 412-394-2883

DATE > July 6, 2000

PAGES > 2 (INCLUDING HEADER)

HANDLED BY > SENDER: Erin L. Ellrod TELEPHONE: 412-395-2714

MESSAGE > Enclosed is the Associate Power of Attorney that we discussed.

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NO. 9177 P. 2

Practitioner's Docket No. 98118

PATENT

Handwritten: #8/PA, 7/7/00

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Grabowsky et al.

Serial No.: 09/126,156

Group No.: 3600-

Filed: July 30, 1998

Examiner: Gibson

For: AIRCRAFT FLIGHT DATA ACQUISITION AND TRANSMISSION SYSTEM

Assistant Commissioner for Patents
Washington, D.C. 20231

FAX RECEIVED

JUL 06 2000

GROUP 3600

ASSOCIATE POWER OF ATTORNEY (37 C.F.R. 1.34)

Please recognize as Associate Practitioner in this case:

Name of practitioner Jonathan C. Parks, Esquire

Official

Address Kirkpatrick & Lockhart LLP, Henry W. Oliver Building,
535 Smithfield Street, Pittsburgh, PA 15222-2312

Reg. No. 40,120

Tel. No. (412) 355-6288

NOTE: Correspondence will be held with the associate attorney, unless the principal attorney directs otherwise.
MPEP § 403.01

NOTE: An associate attorney may not appoint another attorney. M.P.E.P. § 402.02.

Signature of Robert J. Pugh

SIGNATURE OF PRINCIPAL PRACTITIONER
OF RECORD

Reg. No.: 36,895

Robert J. Pugh

(type or print name of practitioner)

Tel. No.: (412) 394-2883

Allegheny Technologies Incorporated

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Pittsburgh, PA 15222-5479

Customer No.:

(Associate Power of Attorney [12-7])



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
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Washington, D.C. 20231

SERIAL NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.
09/126,156	7/30/98	Grabowsky	TE7-1689

EXAMINER	
GIBSON, E	
ART UNIT	PAPER NUMBER
3661	9

DATE MAILED:

EXAMINER INTERVIEW SUMMARY RECORD

All participants (applicant, applicant's representative, PTO personnel):

(1) Examiner Zanelli (MYB) (2) Jonathan Parks #40120
(3) Examiner Gibson (4)

Date of interview 7/6/2000

Type: ☐ Telephonic ☒ Personal (copy is given to ☐ applicant ☒ applicant's representative).Exhibit shown or demonstration conducted: ☐ Yes ☒ No. If yes, brief description:Agreement ☐ was reached with respect to some or all of the claims in question. ☒ was not reached.

Claims discussed: 1, 8, 14, 15, 18, 19, 33

Identification of prior art discussed: Bailey, Farmakis

Description of the general nature of what was agreed to if an agreement was reached, or any other comments: In view of the proposed amendments to the claims, agreement was that Bailey would no longer anticipate the rejected claims. However, a further search and more detailed reading of Farmakis will be required upon a formal response.

(A fuller description, if necessary, and a copy of the amendments, if available, which the examiner agreed would render the claims allowable must be attached. Also, where no copy of the amendments which would render the claims allowable is available, a summary thereof must be attached.)

☒ 1. It is not necessary for applicant to provide a separate record of the substance of the interview.

Unless the paragraph below has been checked to indicate to the contrary, A FORMAL WRITTEN RESPONSE TO THE LAST OFFICE ACTION IS NOT WAIVED AND MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW (e.g., items 1-7 on the reverse side of this form). If a response to the last Office action has already been filed, then applicant is given one month from this interview date to provide a statement of the substance of the interview.

☐ 2. Since the examiner's interview summary above (including any attachments) reflects a complete response to each of the objections, rejections and requirements that may be present in the last Office action, and since the claims are now allowable, this completed form is considered to fulfill the response requirements of the last Office action. Applicant is not relieved from providing a separate record of the substance of the interview unless box 1 above is also checked.

E. A. Gibson
Examiner's Signature

PTOL-413 (REV. 2-83)

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Attorney's Docket No. TET-1689

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Grabowsky et al.

Serial No: 09/128,158

Group No.: 3800

Filed: July 30, 1998

Examiner: E. Gibson

For: AIRCRAFT FLIGHT DATA ACQUISITION AND TRANSMISSION SYSTEM

Assistant Commissioner for Patents
Washington, DC 20231

Phon
7-19-00
Ext. of
time
#10

AMENDMENT TRANSMITTAL

1. Transmitted herewith is an amendment for this application.

STATUS

2. Applicant is

- ☐ a small entity. A verified statement:
☐ is attached.
☐ was already filed.
☒ other than a small entity.

CERTIFICATE OF MAILING/TRANSMISSION (37 CFR 1.8a)

I hereby certify that this correspondence is, on the date shown below, being:

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☐ transmitted by facsimile to the Patent and Trademark Office.

Signature

07/13/2000 SDEKBOB1 00000071 09126136

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(Type or print name of person certifying)

PI - 559459.1

EXTENSION OF TERM

NOTE: "Extension of Time in Patent Cases (Supplement Amendments) - If a timely and complete response has been filed after a Non-Final Office Action, an extension of time is not required to permit filing and/or entry of an additional amendment after expiration of the shortened statutory period.

If a timely response has been filed after a Final Office Action, an extension of time is required to permit filing and/or entry of a Notice of Appeal or filing and/or entry of an additional amendment after expiration of the shortened statutory period unless the timely-filed response placed the application in condition for allowance. Of course, if a Notice of Appeal has been filed within the shortened statutory period, the period has ceased to run." Notice of December 10, 1985 (1061 O.G. 34-35).

NOTE: See 37 CFR 1.645 for extensions of time in interference proceedings, and 37 CFR 1.550(c) for extensions of time in reexamination proceedings.

3. The proceedings herein are for a patent application and the provisions of 37 CFR 1.136 apply.

(complete (a) or (b), as applicable)

(a) ☒ Applicant petitions for an extension of time under 38 CFR 1.136
(fees: 37 CFR 1.17(a)-(d) for the total number of months checked below:

Extension (months)	Fee for other than small entity	Fee for small entity
<input type="checkbox"/> one month	\$ 110.00	\$ 55.00
<input checked="" type="checkbox"/> two months	\$ 380.00	\$190.00
<input type="checkbox"/> three months	\$ 870.00	\$435.00
<input type="checkbox"/> four months	\$1,360.00	\$680.00

Fee \$ 380.00

If an additional extension of time is required, please consider this a petition therefor.

(check and complete the next item, if applicable)

☐ An extension for _____ months has already been secured and the fee paid therefor of \$_____ is deducted from the total fee due for the total months of extension now requested.

Extension fee due with this request \$380.00

OR

(b) ☐ Applicant believes that no extension of term is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition for extension of time.

(Amendment Transmittal [9-18]-page 2 of 4

FEE FOR CLAIMS

4. The fee for claims (37 CFR 1.16(b)-(d)) has been calculated as shown below:

(Col. 1)		(Col. 2)		(Col. 3)	SMALL ENTITY			OTHER THAN A SMALL ENTITY	
CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NO PREVIOUSLY PAID FOR		PRESENT EXTRA	RATE	ADDIT. FEE	OR	RATE	ADDIT. FEE
TOTAL	33*	MINUS	33**	=0	x9*	\$0		x18*	\$0
INDEP.	9*	MINUS	9***	=0	x39*	\$0		x78*	\$0
<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEP. CLAIM					+130*	\$		+280*	\$
					TOTAL ADDIT. FEE	\$0	OR	TOTAL ADDIT. FEE	\$0

- * If the entry in Col. 1 is less than entry in Col. 2, write "1" in Col. 3.
- ** If the "Highest No. Previously Paid for" IN THIS SPACE is less than 20, enter "20."
- *** If the "Highest No. Previously Paid for" IN THIS SPACE is less than 3, enter "3."
The "Highest No. Previously Paid for" (Total or indep.) is the highest number found in the appropriate box in Col. 1 of a prior amendment or the number of claims originally filed.

WARNING "After final rejection or action (§ 1.113) amendments may be made cancelling claims or complying with any requirement of form which has been made." 37 CFR § 1.116(a) (emphasis added).

Complete (c) or (d), as applicable)

(c) ☒ No additional fee for claims is required.**OR**(d) ☐ Total additional fee for claims required \$ _____**FEE PAYMENT**5. ☒ Attached is a check in the sum of \$ 380.00☐ Charge Account No. _____ the sum of \$ _____

A duplicate of this transmittal is attached.

(Amendment Transmittal (B-18)-page 3 of 4)

FEE DEFICIENCY

NOTE: If there is a fee deficiency and there is no authorization to charge an account, additional fees are necessary to cover the additional time consumed in making up the original deficiency. If the maximum, six-month period has expired before the deficiency is noted and corrected, the application is held abandoned. In those instances where authorization to charge is included, processing delays are encountered in returning the papers to the PTO Finance Branch in order to apply these charges prior to action on the cases. Authorization to charge the deposit account for any fee deficiency should be checked. See the Notice of April 7, 1986, (1065 O.G. 31-33).

6. ☒ If any additional extension and/or fee is required, charge Account No.
7. 11-1110

AND/OR

- ☒ If any additional fee for claims is required, charge Account No.
11-1110

Reg. No.: 40,120

Tel. No.: (412) 355-6288



SIGNATURE OF ATTORNEY

Jonathan C. Parks
(type or print name of attorney)

Kirkpatrick & Lockhart LLP
P.O. Address
Henry W. Oliver Building
535 Smithfield Street
Pittsburgh, PA 15222-2312

(Amendment Transmittal [9-18]-page 4 of 4



G-3600 \$

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Grabowsky et al.

Serial No: 09/128,158

Group No.: 3800

Filed: July 30, 1998

Examiner: E. Gibson

For: AIRCRAFT FLIGHT DATA ACQUISITION AND TRANSMISSION SYSTEM

Assistant Commissioner for Patents
Washington, DC 20231

EXPRESS MAIL CERTIFICATE

"Express Mail" label number E1164520046US

Date of Deposit July 10, 2000

I hereby certify that the following attached paper or fee

AMENDMENT TRANSMITTAL
AMENDMENT AND RESPONSE TO OFFICE ACTION
CHECK PAYABLE TO PTO (For 2 month ext. fees)

is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to: Assistant Commissioner of Patents, Washington, D.C. 20231.

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NOTE: The label number need not be placed in each page. It should, however, be placed on the first page of each separate document, such as, a new application, amendment, assignment, and transmittal letter for a fee, along with the certificate of mailing by "Express Mail." Although the label number may be on checks, such a practice is not required. In order not to deface formal drawings it is suggested that the label number be placed on the back of each formal drawing or the drawings be accompanied by a set of informal drawings on which the label number is placed.

(Express Mail Certificate [8-3])

PI-559466.1

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PATENT
TET-1689 (98118)

11/13
Elo
7-19-00

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: :
Grabowsky et al. :
Examiner E. Gibson : AIRCRAFT FLIGHT DATA ACQUISITION
AND TRANSMISSION SYSTEM
Art Unit 3661 :
Serial No.: 09/126,156 :
Filed: July 30, 1998 : Group 3600

AMENDMENT AND RESPONSE TO OFFICE ACTION

Pittsburgh, Pennsylvania 15222
July 10, 2000

Assistant Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

In response to the Office Action dated February 9, 2000, please amend the above-identified application as follows:

In the Claims

Please amend the claims as follows:

1. (Amended) An aircraft data transmission system, the aircraft having a data acquisition unit, comprising:
- a communications unit located in the aircraft and in communication with the data acquisition unit;

PI-559323.01

22

a cellular infrastructure in communication with said communications unit after the aircraft has landed, wherein the communication is initiated automatically upon landing of the aircraft; and

a data reception unit in communication with said cellular infrastructure.

8. (Twice Amended) A data system for an aircraft, comprising:

a digital flight data acquisition unit in communication with at least one sensor;

a processor in communication with said digital flight data acquisition unit;

a serial card in communication with said processor; and

a plurality of cell channels in communication with said serial card, said cell channels for transmitting data via a cellular infrastructure after the aircraft has landed, wherein the communication between the cell channels and the serial card is initiated automatically upon landing of the aircraft.

14. (Amended) An aircraft, comprising:

a digital flight data acquisition unit in communication with at least one sensor;

and

a communications unit in communication with said digital flight data acquisition unit, said communications unit including:

a processor in communication with said digital flight data acquisition unit;

a serial card in communication with said processor; and

a plurality of cell channels in communication with said serial card, said cell channels for transmitting data via a cellular infrastructure after the aircraft has

landed, wherein the communication between the cell channels and the serial card is initiated automatically upon landing of the aircraft.

15. (Amended) An aircraft data transmission system, the aircraft having a data acquisition unit, comprising:

means for transmitting data from the data acquisition unit via a cellular infrastructure after the aircraft has landed, wherein transmission of the data is initiated automatically upon landing of the aircraft; and

means for receiving said data from said cellular infrastructure.

18. (Amended) A method of transmitting aircraft flight data from an aircraft, comprising:

receiving flight data from a data acquisition unit;

transmitting said flight data via a cellular communications infrastructure after the aircraft has landed, wherein the cellular communications infrastructure is accessed automatically upon landing of the aircraft; and

receiving said transmitted flight data.

19. (Amended) A computer-implemented method of transmitting aircraft flight data from an aircraft, comprising:

receiving flight data from a digital flight data acquisition unit;

processing said flight data to prepare said data for transmission; and

transmitting said processed data via a cellular infrastructure after the aircraft has landed, wherein the cellular infrastructure is accessed automatically upon landing of the aircraft.

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33. (Amended) A computer readable medium having stored thereon instructions which when executed by a processor, cause the processor to perform the steps of:

receiving flight data from a digital flight data acquisition unit in an aircraft;

processing said flight data to prepare said data for transmission; and

transmitting said processed data via a cellular infrastructure when said aircraft has landed, wherein the cellular infrastructure is accessed automatically upon landing of the aircraft.

REMARKS

At the outset, Applicants and the undersigned would like to express their appreciation to Examiners Zanelli and Gibson for the courtesies extended at the personal interview of July 6, 2000. Applicants also express their appreciation to the Examiner for the allowance of claims 26-28, 30-32, 34, and 35.

In the Office Action, the Examiner rejected claims 1, 4, 7, and 15-17 as being anticipated by, or in the alternative obvious over, U.S. Patent No. 5,550,738 to Bailey et al. The Examiner rejected claims 8, 10, 12, 14, 18, and 19 as being obvious over Bailey et al. in view of U.S. Patent No. 5,714,948 to Farmakis et al. The Examiner rejected claim 20 as being obvious over Bailey and Farmakis in further view of U.S. Patent No. 5,890,079 to Levine. The Examiner rejected claims 21-22 as being obvious over Bailey, Farmakis, and Levine and in further view of U.S. Patent No. 5,793,813 to Cleave. The Examiner rejected claims 2-3 as being obvious over Bailey in view of Cleave. The Examiner rejected claims 5-6 as being obvious over Bailey in view of U.S. Patent No.

5,901,142 to Averbuch. The Examiner rejected claim 9 as being obvious over Bailey and Farmakis in further view of Averbuch. The Examiner rejected claim 11 as being obvious over Bailey and Farmakis in further view of U.S. Patent No. 5,519,663 to Harper, Jr. et al. The Examiner rejected claim 13 as being obvious over Bailey and Farmakis in further view of U.S. Patent No. 4,939,652 to Steiner. The Examiner rejected claim 23 as being obvious over Bailey and Farmakis in further view of U.S. Patent No. 5,124,915 to Krenznel. The Examiner rejected claim 24 as being obvious over Bailey, Farmakis, and Krenznel in further view of Steiner. The Examiner rejected claim 33 as being obvious over Bailey in view of U.S. Patent No. 5,852,825 to Winslow. Applicants respectfully traverse these rejections as follows.

The primary reference used to reject claims 1-24, 26-28, and 30-35 is Bailey. Applicants have herein amended independent claims 1, 8, 14, 15, 19, and 33. As discussed at the July 6 interview, the Examiner has agreed that, in view of the amendments, those claims are not anticipated by Bailey. See Examiner Interview Summary Record dated July 6, 2000.

However, the Examiner expressed that a "detailed reading of Farmakis" would be required prior to allowance of the rejected claims. Applicants submit that the rejected claims are not anticipated by nor obvious in view of Farmakis, either solely or in combination with other references. Farmakis is directed to a satellite-based system for tracking and control of aircraft. The system is used for, among other purposes, communications between aircraft on the ground and an air traffic control facility via satellite, cell telephone, or HF/VHF/UHF radio to track the surface movement of the

aircraft and to detect the position of the aircraft on the ground. *See* Farmakis, col. 16, lines 35-62. The system disclosed in Farmakis replaces or supplements verbal communications between an aircraft and an air traffic control facility with coded segments and/or data after the aircraft has landed. Such communications can include, for example, a request for closure of an aircraft's flight plan. Farmakis states that such a request can be made manually by the pilot or automatically in response to lowering the landing gear. *See* Farmakis, col. 20, lines 5-27.


Farmakis does not disclose, among other elements, "a cellular infrastructure in communication with said communications unit after the aircraft has landed, wherein the communication is initiated automatically upon landing of the aircraft" as claimed in claim 1, "a plurality of cell channels in communication with said serial card, said cell channels for transmitting data via a cellular infrastructure after the aircraft has landed, wherein the communication between the cell channels and the serial card is initiated automatically upon landing of the aircraft" as claimed in claims 13 and 14, "means for transmitting data from the data acquisition unit via a cellular infrastructure after the aircraft has landed, wherein transmission of the data is initiated automatically upon landing of the aircraft" as claimed in claim 15, "transmitting said flight data via a cellular communications infrastructure after the aircraft has landed, wherein the cellular communications infrastructure is accessed automatically upon landing of the aircraft" as claimed in claim 18, "transmitting said processed data via a cellular infrastructure after the aircraft has landed, wherein the cellular infrastructure is accessed automatically upon landing of the aircraft" as claimed in claim 19, or "transmitting said processed data via a cellular

infrastructure when said aircraft has landed, wherein the cellular infrastructure is accessed automatically upon landing of the aircraft" as claimed in claim 33. Thus, Applicants submit that independent claims 1, 8, 14, 15, 18, 19, and 33, and depended claims 2-7, 9-13, 16-17, and 20-24 which depend therefrom, respectively, are in condition for allowance.

CONCLUSION

For the reasons stated herein, a Notice of Allowance for all pending claims is earnestly requested. If the Examiner is of the opinion that the instant application is in condition for disposition other than allowance, the Examiner is respectfully requested to contact Applicants' attorney at the telephone number listed below in order that the Examiner's concerns may be expeditiously addressed.

Respectfully submitted,


Jonathan C. Parks
Attorney for Applicants
Reg. No. 40,120

Kirkpatrick and Lockhart, LLP
Henry W. Oliver Building
535 Smithfield Street
Pittsburgh, PA 15222
(412) 355-6288

7 B

Notice of Allowability	Application No.	Applicant(s)	
	09/128,156	GRABOWSKY ET AL.	
	Examiner	Art Unit	
	Eric M Gibson	3661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--
All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance and Issue Fee Due or other appropriate communication will be mailed in due course.

1. ☒ This communication is responsive to 7/10/2000.
2. ☒ The allowed claim(s) is/are 1-24, 28-29 and 30-35.
3. ☐ The drawings filed on _____ are acceptable.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
 - a) ☐ All b) ☐ Some* c) ☐ None of the CERTIFIED copies of the priority documents have been
 1. ☐ received.
 2. ☐ received in Application No. (Series Code / Serial Number). _____
 3. ☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____
5. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. & 119(e).

A SHORTENED STATUTORY PERIOD FOR REPLY to comply with the requirements noted below is set to EXPIRE THREE MONTHS FROM THE "DATE MAILED" of this Office Action. Failure to timely comply will result in ABANDONMENT of this application. Extensions of time may be available under the provisions of 37 CFR 1.136(a).


6. ☐ Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient. A SUBSTITUTE OATH OR DECLARATION IS REQUIRED.
7. ☒ Applicant MUST submit NEW FORMAL DRAWINGS
 - (a) ☐ because the originally filed drawings were declared by applicant to be informal.
 - (b) ☒ Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☒ to Paper No. 3.
 - (c) ☒ Including changes required by the proposed drawing correction filed 12/30/1999, which has been approved by the examiner.
 - (d) ☐ Including changes required by the attached Examiner's Amendment / Comment.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the reverse side of the drawings. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftsperson.
8. ☐ Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Any reply to this letter should include, in the upper right hand corner, the APPLICATION NUMBER (SERIES CODE / SERIAL NUMBER). If applicant has received a Notice of Allowance and Issue Fee Due, the ISSUE BATCH NUMBER and DATE of the NOTICE OF ALLOWANCE should also be included.

Attachment(s)

1 <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) 3 <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 5 <input type="checkbox"/> Information Disclosure Statements (PTO-1449), Paper No. _____ 7 <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material	2 <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) 4 <input type="checkbox"/> Interview Summary (PTO-413), Paper No. _____ 6 <input type="checkbox"/> Examiner's Amendment/Comment 8 <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9 <input type="checkbox"/> Other
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WILLIAM A. CUCHLINSKI, JR.
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600

Application/Control Number: 09/126,156
Art Unit: 3661

Page 2

Reasons for Allowance

1. Claims 1-24, 26-28, 30-35 are allowed.
2. The following is an examiner's statement of reasons for allowance:
 3. Claims 1, 8, 14, 15, 18, 19 and 33 are found to be allowable over the prior art because the use of the existing cellular infrastructure in the transmission of the data from the aircraft to the flight operations center defines over the prior art. In existing systems, an airport specific wireless communication system is used for the transmission of data (see applicant's specification, page 2, lines 3-15). The use of an existing cellular infrastructure to transmit the data results in a significant cost savings over the systems of the prior art (see applicant's specification page 2, line 24 – page 3, line 1).
 4. Claims 2-7, 9-13, 16-17 and 20-24 serve to further define the invention over the prior art.
 5. Claims 26-28, 30-32 and 34-35 were indicated as allowed in the Office Action dated 2/9/2000.
 6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. An updated search revealed Wright et al. (US 6,047,165). Wright teaches a wireless, frequency-agile spread spectrum ground link-based aircraft

Application/Control Number: 09/126,156

Page 3

Art Unit: 3661

data communication system. In the system taught by Wright, aircraft data is wirelessly downloaded via an airport specific RF communications system, upon landing of the aircraft.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric M Gibson whose telephone number is (703) 306-4545. The examiner can normally be reached on M-F.
9. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Cuchlinski can be reached on (703) 308-3873. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7687 for regular communications and (703) 305-7687 for After Final communications.
10. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.


WILLIAM A. CUCHLINSKI, JR.
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600

EMG
August 23, 2000

FILE COPY

Notice of References Cited				Application/Control No.		Reexamination	
				09/128,158		GRABOWSKY ET AL.	
				Examiner		Art Unit	
				Eric M Gibson		3881	
Page 1 of 1							
PATENT DOCUMENTS							
*		DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	DOCUMENT SOURCE **
							APS OTHER
<input type="checkbox"/>	A	6,047,185	Apr. 2000	Wright et al.	455	68	<input type="checkbox"/> <input type="checkbox"/>
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NON-PATENT DOCUMENTS							
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*A copy of this reference is not being furnished with this Office action. (See Manual of Patent Examining Procedure, Section 707.08(a).)

**APS encompasses any electronic search i.e. text, image, and Commercial Databases.

U.S. Patent and Trademark Office
PTO-892 (Rev. 03-98)

Notice of References Cited

Part of Paper No. 12



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

NOTICE OF ALLOWANCE AND ISSUE FEE DUE

PM82/0829

JONATHAN C. PARKS, ESQ.
KIRKPATRICK & LOCKHART LLP
HENRY W. OLIVER BLDG.
535 SMITHFIELD STREET
PITTSBURGH PA 15222-2312

APPLICATION NO.	FILING DATE	TOTAL CLAIMS	EXAMINER AND GROUP ART UNIT	DATE MAILED
09/126,156	07/30/98	033	GIBSON, E 3661	08/29/00
First Named Applicant GRABOWSKY, 35 USC 154(b) term ext. = 0 Days.				

TITLE OF INVENTION AIRCRAFT FLIGHT DATA ACQUISITION AND TRANSMISSION SYSTEM

ATTY'S DOCKET NO.	CLASS-SUBCLASS	BATCH NO.	APPLN. TYPE	SMALL ENTITY	FEE DUE	DATE DUE
2 TET-1689	701-014,000	R44	UTILITY	NO	\$1210.00	11/29/00

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED.

THE ISSUE FEE MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED.

HOW TO RESPOND TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

- A. If the status is changed, pay twice the amount of the FEE DUE shown above and notify the Patent and Trademark Office of the change in status, or
- B. If the status is the same, pay the FEE DUE shown above.

If the SMALL ENTITY is shown as NO:

A. Pay FEE DUE shown above, or

B. File verified statement of Small Entity Status before, or with, payment of 1/2 the FEE DUE shown above.

II. Part B-Issue Fee Transmittal should be completed and returned to the Patent and Trademark Office (PTO) with your ISSUE FEE. Even if the ISSUE FEE has already been paid by charge to deposit account, Part B-Issue Fee Transmittal should be completed and returned. If you are charging the ISSUE FEE to your deposit account, section "4b" of Part B-Issue Fee Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give application number and batch number. Please direct all communications prior to issuance to Box ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PATENT AND TRADEMARK OFFICE COPY

PTOL-85 (REV. 10-96) Approved for use through 06/30/99. (0651-0033)



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Grabowsky et al.

Serial No: 08/126,156

Group No.: 3800

Filed: July 30, 1998

Examiner: E. Gibson
Batch No. R44

For: AIRCRAFT FLIGHT DATA ACQUISITION AND TRANSMISSION SYSTEM

Commissioner for Patents
Washington, DC 20231

Attention: Official Draftsperon

EXPRESS MAIL CERTIFICATE

"Express Mail" label number EF133022911US

Date of Deposit: November 29, 2000

I hereby certify that the following attached paper or fee
TRANSMITTAL OF FORMAL DRAWINGS
10 SHEETS OF FORMAL DRAWINGS
COPY OF THE NOTICE OF ALLOWABILITY

Is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to: Commissioner for Patents, Washington, DC 20231, Attention: Official Draftsperon.

Beth H. Retory
 (Typed or printed name of person mailing paper or fee)
Beth H. Retory
 (Signature of person mailing paper or fee)

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NOTE: The label number need not be placed in each page. It should, however, be placed on the first page of each separate document, such as: a new application, amendment, assignment, and transmittal letter for a fee, along with the certificate of mailing by "Express Mail." Although the label number may be on checks, such a practice is not required. In order not to deface formal drawings it is suggested that the label number be placed on the back of each formal drawing or the drawings be accompanied by a set of informal drawings on which the label number is placed.

(Express Mail Certificate [8-3])

08.00

Attorney's Docket No. TET-1689

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Grabowsky et al.

Serial No: 09/128,156

Group No.: 3800

Filed: July 30, 1998

Examiner: E. Gibson
Batch No. R44

For: AIRCRAFT FLIGHT DATA ACQUISITION AND TRANSMISSION SYSTEM

Commissioner for Patents
Washington, DC 20231

Attention: Official Draftsperson



TRANSMITTAL OF FORMAL DRAWINGS

In response to the NOTICE OF ALLOWABILITY mailed on August 29, 2000
(date)

attached please find:

(a) the formal drawing(s) for this application.

Number of Sheets 10

NOTE: "Identifying indicia, if provided, should include the application number or the title of the invention, inventor's name, docket number (if any), and the name and telephone number of a person to call if the Office is unable to match the drawings to the proper application. This information should be placed on the back of each sheet of a drawing a minimum distance of 1.5 cm. (5/8 inch) down from the top of the page." 37 C.F.R. 1.84(c)).

☒ Each sheet of drawing indicates the identifying indicia suggested in § 1.84(c) on the reverse side of the drawing.

(b) a copy of the NOTICE OF ALLOWABILITY.

Reg. No.: 44,249

Robert A. Muha
SIGNATURE OF ATTORNEY

Robert A. Muha
(type or print name of person certifying)

Tel. No.: (412) 355-8244

Kirkpatrick & Lockhart, LLP
Henry W. Oliver Building
535 Smithfield Street
Pittsburgh, PA 15222-2312

CERTIFICATE OF MAILING (37 C.F.R. 1.8(a))


I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below the sufficient postage as first class mail in an envelope addressed to the Commissioner of Patents and Trademarks, Washington, D.C. 20231.

Date _____

(type or print name of person mailing paper)

(Signature of person mailing paper)

(Transmittal of Formal Drawings In Response to Notice of Informal Drawings [9-16.1])

	Notice of Allowability	
	Application No.	Applicant(s)
	09/128,168	GRABOWSKY ET AL.
Examiner	Art Unit	
Eric M Gibson	3681	

— The MAILING DATE of this communication appears on the cover sheet with the correspondence address—
All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance and Issue Fee Due or other appropriate communication will be mailed in due course.

- ☒ This communication is responsive to 7/19/2000.
- ☒ The allowed claim(s) is/are 1-24, 26-28 and 30-35.
- ☐ The drawings filed on _____ are acceptable.
- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
 - ☐ All
 - ☐ Some*
 - ☐ None
 of the CERTIFIED copies of the priority documents have been
 - ☐ received.
 - ☐ received in Application No. (Series Code / Serial Number), _____.
 - ☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 * Certified copies not received: _____.
- ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. & 119(e).

A SHORTENED STATUTORY PERIOD FOR REPLY to comply with the requirements noted below is set to EXPIRE THREE MONTHS FROM THE "DATE MAILED" of this Office Action. Failure to timely comply will result in ABANDONMENT of this application. Extensions of time may be available under the provisions of 37 CFR 1.136(a).

- ☐ Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient. A SUBSTITUTE OATH OR DECLARATION IS REQUIRED.
- ☒ Applicant MUST submit NEW FORMAL DRAWINGS
 - ☐ because the originally filed drawings were declared by applicant to be informal.
 - ☒ Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - ☐ hereto or 2) ☒ to Paper No. 3.
 - ☒ Including changes required by the proposed drawing correction filed 12/30/1999, which has been approved by the examiner.
 - ☐ Including changes required by the attached Examiner's Amendment / Comment.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the reverse side of the drawings. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftsperson.

- ☐ Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Any reply to this letter should include, in the upper right hand corner, the APPLICATION NUMBER (SERIES CODE / SERIAL NUMBER). If applicant has received a Notice of Allowance and Issue Fee Due, the ISSUE BATCH NUMBER and DATE of the NOTICE OF ALLOWANCE should also be included.

Attachment(s)

1 <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	2 <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3 <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	4 <input type="checkbox"/> Interview Summary (PTO-413), Paper No. _____
5 <input type="checkbox"/> Information Disclosure Statements (PTO-1449), Paper No. _____	6 <input type="checkbox"/> Examiner's Amendment/Comment
7 <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material	8 <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance
	9 <input type="checkbox"/> Other

WILLIAM A. CUCHLINSKI, JR.
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600

U.S. Patent and Trademark Office
PTO-37 (Rev. 3-98)

Notice of Allowability

Part of Paper No. 12.

6181990

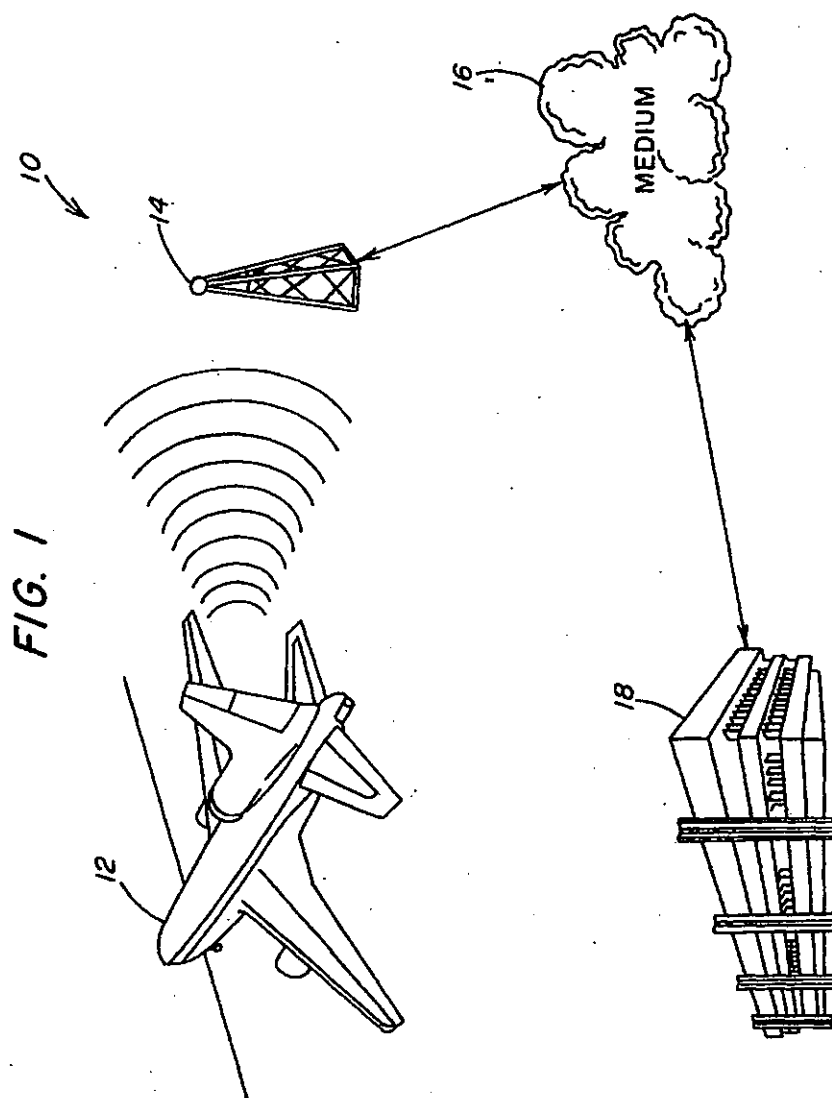


FIG. 2

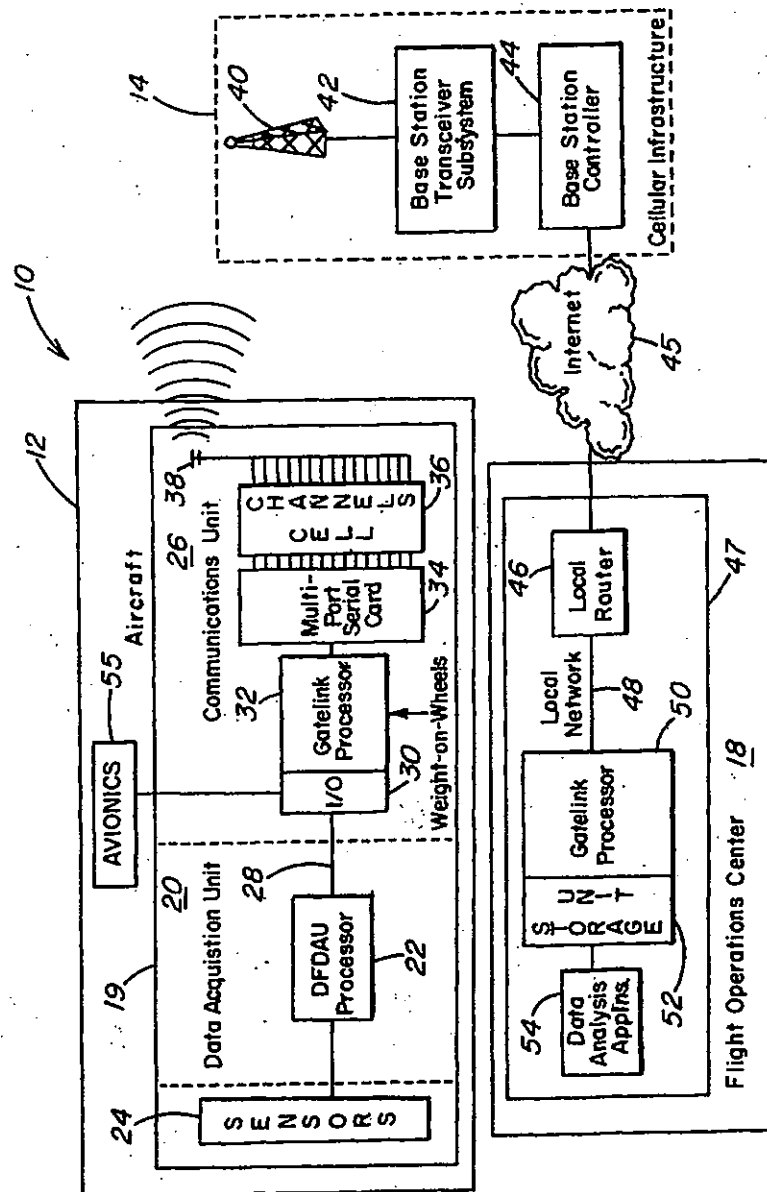


FIG. 3

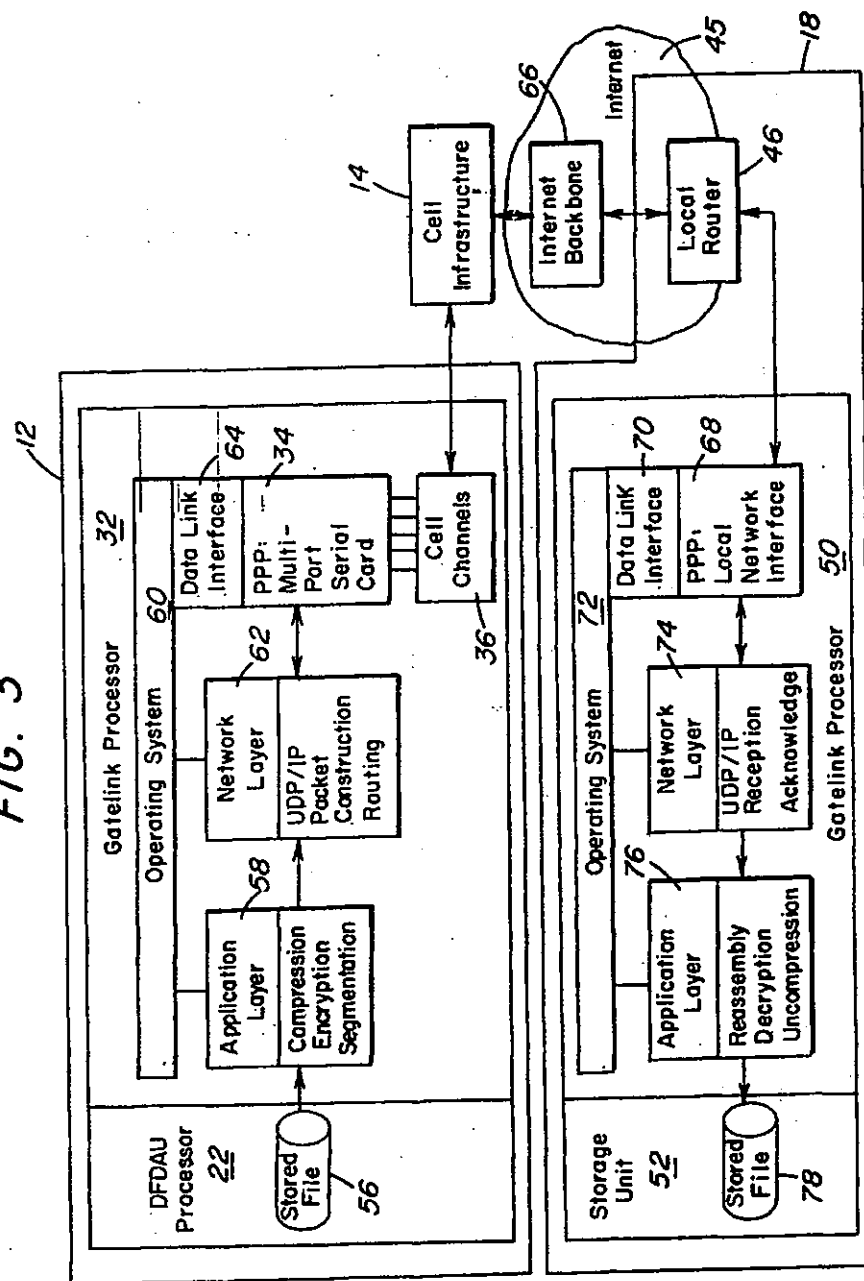


FIG. 4

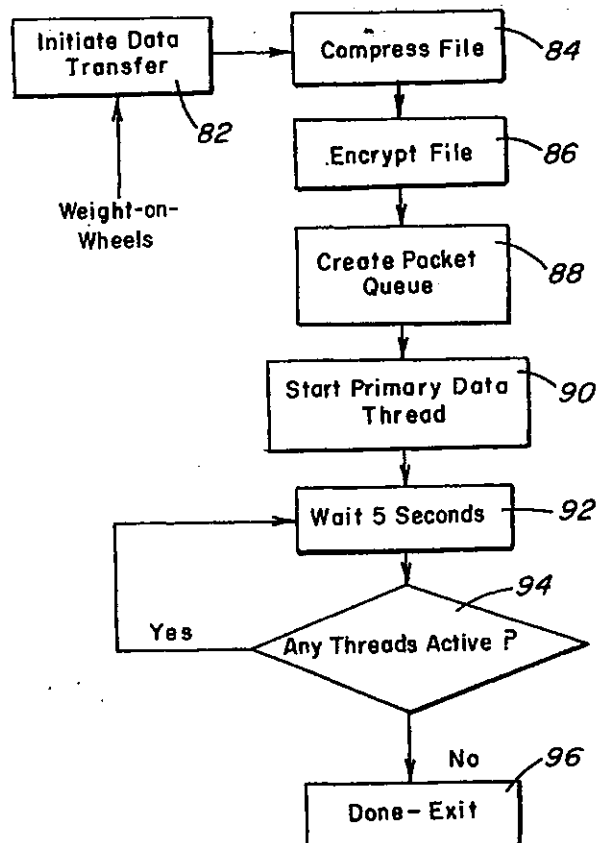


FIG. 5

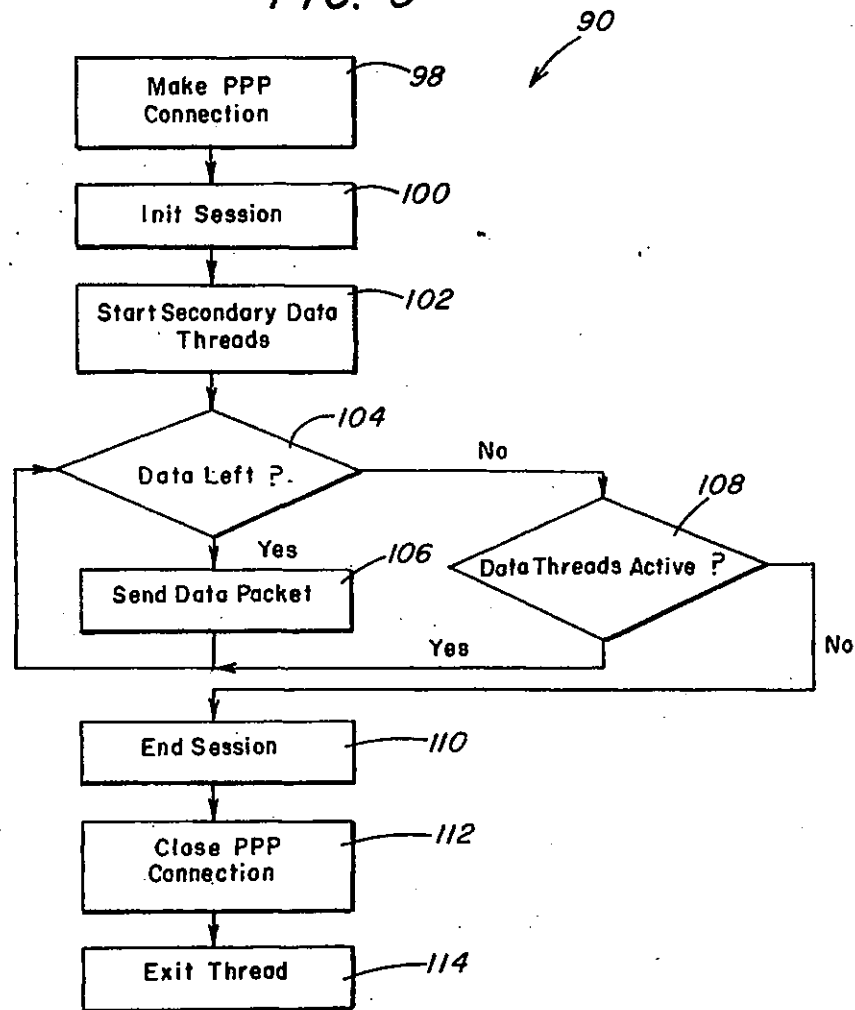


FIG. 6

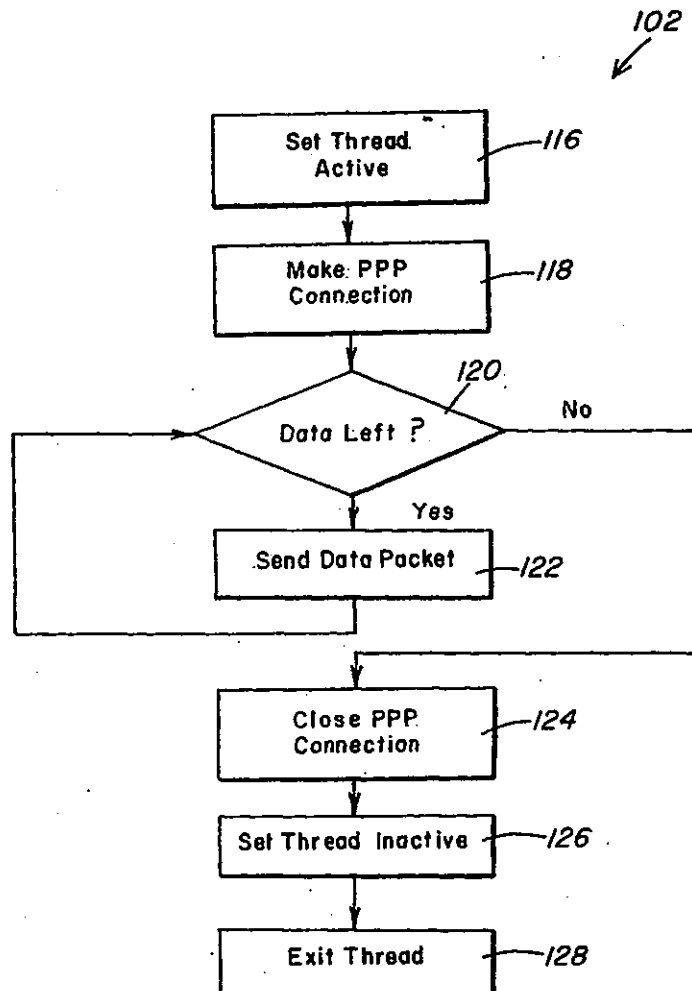


FIG. 7

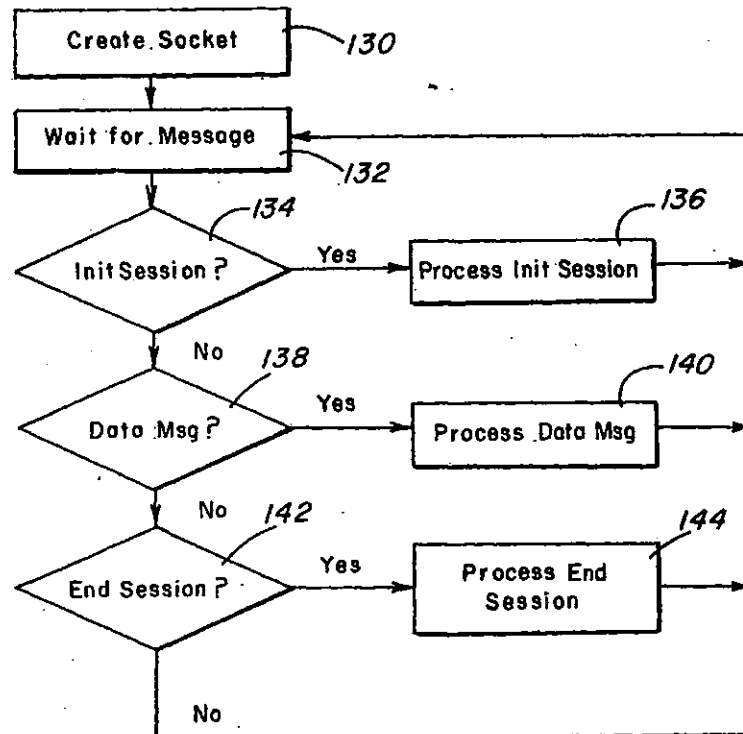


FIG. 8

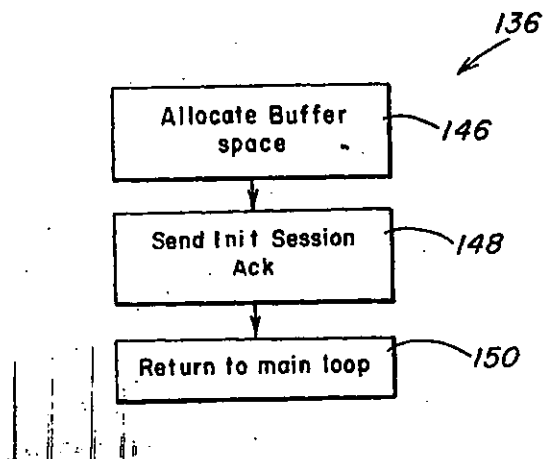


FIG. 9

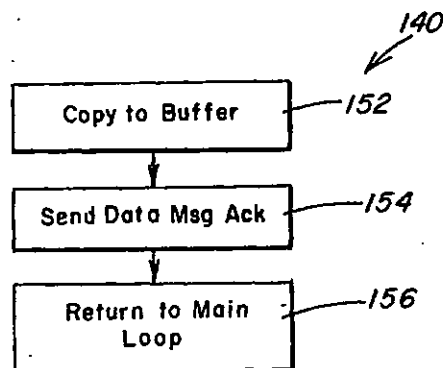


FIG. 10

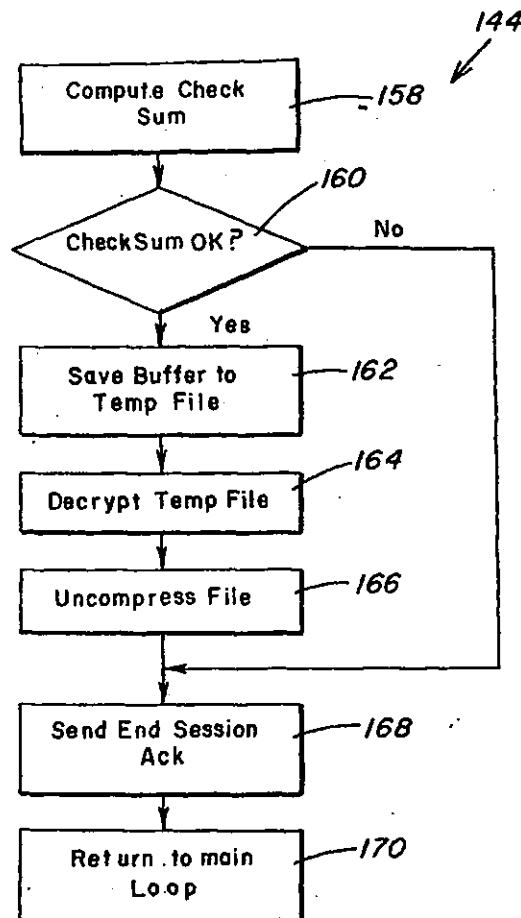
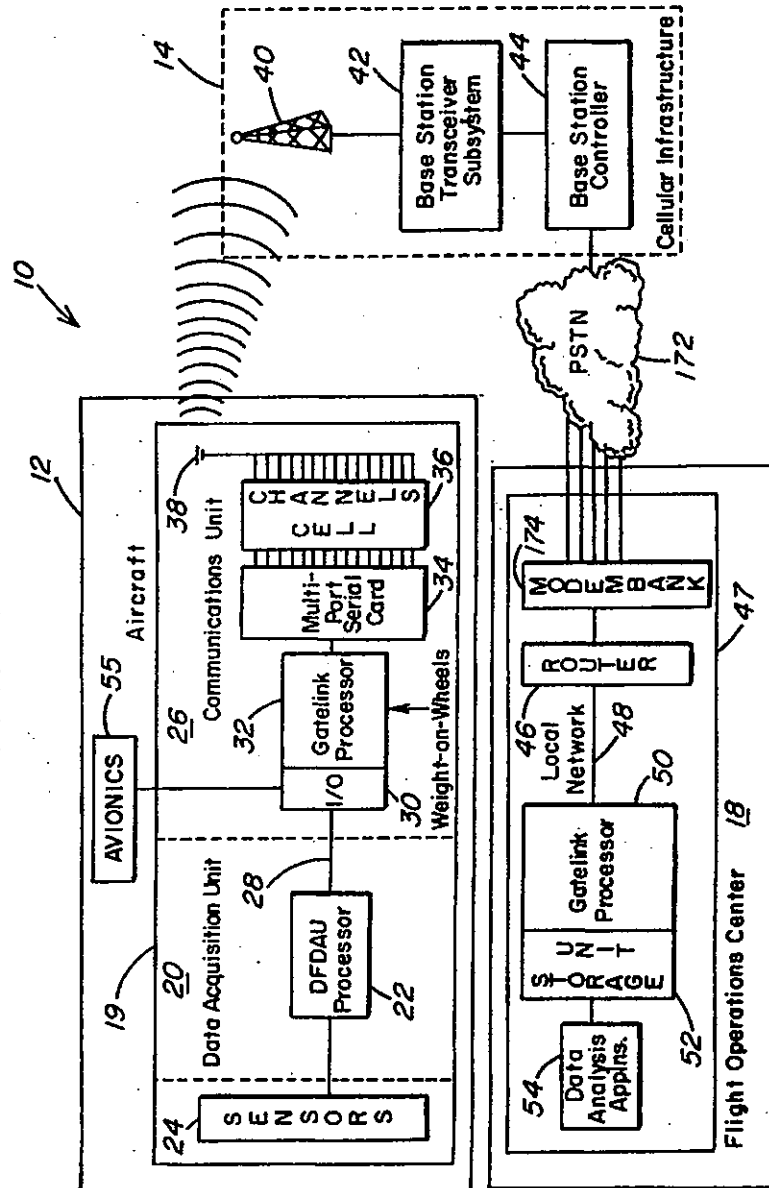


FIG. 11





JK

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

PATENT

In re application of: Grabowsky et al.

Serial No: 09/126,158

Group No.: 3800

Filed: July 30, 1998

Examiner: E. Gibson
Batch No. R44

For: AIRCRAFT FLIGHT DATA ACQUISITION AND TRANSMISSION SYSTEM

BOX: ISSUE FEE
Commissioner for Patents
Washington, DC 20231

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(Express Mail Certificate [8-3])

8/00

Attorney's Docket No. TET-1689

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Grabowsky, et al.

Serial No: 09/126,156

Group No.: 3600

Filed: July 30, 1998

Examiner: E. Gibson
Batch No. R44

For: AIRCRAFT FLIGHT DATA ACQUISITION AND TRANSMISSION SYSTEM

Commissioner for Patents

Washington, D.C. 20231

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2. Fee (37 C.F.R. 1.18(a) and (b)):

Application status is:

- ☐ small business entity-fee
☐ verified statement attached
☐ verified statement filed on
☒ other than a small entity-fee

- Regular Design
☐ \$620.00 ☐ \$220.00
☒ \$1,240.00 ☐ \$440.00

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Robert A. Muha
SIGNATURE OF ATTORNEY

Reg. No.: 44,249

Robert A. Muha
(type or print name of person certifying)

Tel. No.: (412) 355-8244

Kirkpatrick & Lockhart, LLP
Henry W. Oliver Building
535 Smithfield Street
Pittsburgh, PA 15222-2312

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SK

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RECEIVED

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TERRI WATSON (Depositor's name)

(Signature)

(Date)

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**JONATHAN C. PARKS, ESQ.
KIRKPATRICK & LOCKHART LLP
HENRY W. OLIVER BLDG.
535 SMITHFIELD STREET
PITTSBURGH PA 15222-2312**

APPLICATION NO. 09/126,156 **FILING DATE** 07/30/98 **TOTAL CLAIMS** 033 **EXAMINER AND GROUP ART UNIT** GIBSON, E 3661 **DATE MAILED** 08/29/00

First Named Applicant GRABOWSKY, **35 USC 154(b) term ext. =** 0 Days.

TITLE OF INVENTION AIRCRAFT FLIGHT DATA ACQUISITION AND TRANSMISSION SYSTEM

ATTY'S DOCKET NO.	CLASS-SUBCLASS	BATCH NO.	APPLN. TYPE	SMALL ENTITY	FEE DUE	DATE DUE
2 TET-1689	701-014.000	R44	UTILITY	NO	\$1240.00 1,240.00	11/29/00

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☒ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

☐ "Fee Address" indication (or "Fee Address" indication form PTO/SB/47) attached.

2. For printing on the patent front page, list (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 **Kirkpatrick & Lockhart LLP**

2

3

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. Inclusion of assignee data is only appropriate when an assignment has been previously submitted to the PTO or is being submitted under separate cover. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE
Taledyne Technologies, Inc.

(B) RESIDENCE (CITY & STATE OR COUNTRY)
Los Angeles, CA 90067

Please check the appropriate assignee category indicated below (will not be printed on the patent)

☒ Individual ☒ Corporation or other private group entity ☐ government

4a. The following fees are enclosed (make check payable to Commissioner of Patents and Trademarks):

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☒ Advance Order - # of Copies **20**

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☒ Advance Order - # of Copies **20**

The COMMISSIONER OF PATENTS AND TRADEMARKS IS requested to apply the Issue Fee to the application identified above.

(Authorized Signature) **Robert A. Mula** (Date) **11-29-00**

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12/01/2000 AZERDAMZ 00000009 09129156

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02 FC:561

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/126,156	07/30/1998	JOHN FRANCIS GRABOWSKY	TET-1689	8601

7590

08/09/2002

JONATHAN C. PARKS, ESQ.
 KIRKPATRICK & LOCKHART LLP
 HENRY W. OLIVER BLDG.
 535 SMITHFIELD STREET
 PITTSBURGH, PA 15222-2312

EXAMINER

GIBSON, ERIC M

ART UNIT

PAPER NUMBER

3661

DATE MAILED: 08/09/2002

15

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Patent and Trademark Office

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APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
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EXAMINER

ART UNIT

PAPER

15

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COMMERCE

Patent and Trademark Office

ASSISTANT COMMISSIONER FOR PATENTS

demarks

You are hereby notified under 37 CFR 1.607(d) that an applicant is seeking to provoke an interference with your U.S. Patent No. 6,181,990.

The identity of the applicant will not be disclosed unless an interference is declared.

If a final decision is made not to declare an interference, a notice to that effect will be placed in the patent file and will be sent to the patentee.

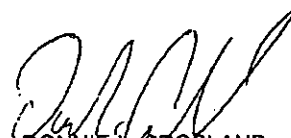
If an interference is declared, notice thereof will be made under 37 CFR 1.611.

DONNIE L. CROSLAND

Primary Examiner

Art Unit 2632

(703) 305-4388


DONNIE L. CROSLAND
Primary Examiner
Art Unit: 2632

PATENT APPLICATION SERIAL NO. 09/126,156

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE
FEE RECORD SHEET

06/04/1998 DNASH1 00000054 010840 09126156

01 FC:101	790.00 CH
02 FC:103	285.00 CH
03 FC:102	320.00 CH

PTO-1556
(5/87)

PATENT APPLICATION FEE DETERMINATION RECORD					Application or Docket Number 124156		
Effective October 1, 1997							
CLAIMS AS FILED - PART I					SMALL ENTITY		
(Column 1) (Column 2)					TYPE <input type="checkbox"/> OR OTHER THAN SMALL ENTITY		
FOR	NUMBER FILED	NUMBER EXTRA			RATE	FEE	
BASIC FEE						395.00	
TOTAL CLAIMS	33	minus 20 =	13		x\$11=		
INDEPENDENT CLAIMS	7	minus 3 =	4		x\$22=	286	
MULTIPLE DEPENDENT CLAIM PRESENT					x\$41=		
					+135=		
					TOTAL		
					OR	TOTAL	
						1409	
* If the difference in column 1 is less than zero, enter "0" in column 2							
CLAIMS AS AMENDED - PART II					SMALL ENTITY		
(Column 1) (Column 2) (Column 3)					OR OTHER THAN SMALL ENTITY		
AMENDMENT A	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE		ADDITIONAL FEE	
	Total	33	Minus	33	=	x\$11=	
	Independent	9	Minus	7	=	x\$22=	78
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM			x\$41=		x\$82=	156
				+135=		+270=	
					TOTAL		
					OR	TOTAL	
						156	
* If the difference in column 1 is less than zero, enter "0" in column 2							
AMENDMENT B					SMALL ENTITY		
(Column 1) (Column 2) (Column 3)					OR OTHER THAN SMALL ENTITY		
AMENDMENT B	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE		ADDITIONAL FEE	
	Total	33	Minus	33	=	x\$11=	
	Independent	9	Minus	9	=	x\$22=	
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM			x\$41=		x\$82=	
				+135=		+270=	
					TOTAL		
					OR	TOTAL	
* If the difference in column 1 is less than zero, enter "0" in column 2							
AMENDMENT C					SMALL ENTITY		
(Column 1) (Column 2) (Column 3)					OR OTHER THAN SMALL ENTITY		
AMENDMENT C	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE		ADDITIONAL FEE	
	Total		Minus		=	x\$11=	
	Independent		Minus		=	x\$22=	
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM			x\$41=		x\$82=	
				+135=		+270=	
					TOTAL		
					OR	TOTAL	
* If the entry in column 1 is less than the entry in column 2, write "0" in column 3. * If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20." * If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3." The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.							

ISSUE SLIP STAPLE AREA (for additional cross references)

POSITION	INITIALS	ID NO.	DATE
FEE DETERMINATION	DA	65114	8/4/02
O.I.P.E. CLASSIFIER		25	08/08/02
FORMALITY REVIEW		67369	9/13

INDEX OF CLAIMS

✓ Rejected
 = Allowed
 - (Through numeral) Canceled
 ÷ Restricted
 N Non-elected
 I Interference
 A Appeal
 O Objected

Claim	Final	Original	Date
1	✓	✓	8/27/02
2	✓	✓	8/27/02
3	✓	✓	8/27/02
4	✓	✓	8/27/02
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Claim	Final	Original	Date
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Claim	Final	Original	Date
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If more than 150 claims or 10 actions
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Exhibit Part 2

Page 406

TDY0002338

SEARCH NOTES

(INCLUDING SEARCH STRATEGY)

INTERFERENCE SEARCHED

TDY0002339